CLAIMS

1. A method for deciding on handover in a cellular communication system comprising cells and a mobile station having a connection to at least a first cell providing a certain data transfer rate i.e. a bit rate to the mobile station, the method comprising:

collecting bit rate information related to the mobile station; and

using the bit rate information for deciding on handover of the mobile station from the first cell to a second cell.

2. The method of claim 1, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one other cell, a bit rate requested by the mobile station.

3. The method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on whether handover should be carried out.

4. The method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on to which cell handover of the mobile station should be made.

5. The method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on when handover should be carried out.

6. The method of claim 1, wherein information about traffic distribution in the system is utilized when deciding on handover of the mobile station.

7. The method of claim 1, wherein information about capacity provided by the system in different parts of the system is utilized when deciding on handover of the mobile station.

8. The method of claim 1, further comprising:

defining sub-areas within the coverage area of the system, and

defining preferable bit rates for each sub-area, whereby so defined sub-area information is used when deciding on handover of the mobile station.

9. The method of any one of claims 3 to 8, further comprising:

defining a handover profile which defines preferable cell(s) for each bit rate, whereby the handover profile is used when deciding on handover of the mobile station.

10. The method of claim 5, wherein, when the mobile station is

moving from the first cell to the second cell, the method comprises:

measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell and

performing the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

11. The method of claim 10, wherein the predetermined condition requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

12. The method of claim 11, wherein the limit value(s) is (are) based on the variation of the bit rate provided by the first cell and/or the bit rate provided by the second cell.

13. The method of any one of claims 1 to 8, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system.

14. A cellular communication system comprising:

cells; and

a mobile station having a connection to at least a first cell providing a certain data transfer rate i.e. a bit rate to the mobile station; wherein the system is configured to:

collect bit rate information related to the mobile station; and

use the bit rate information for deciding on mobile station handover from the first cell to a second cell.

15. The cellular communication system of claim 14, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one second cell, a bit rate requested by the mobile station.

16. The cellular communication system of claim 14, wherein the system is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on whether handover should be carried out.

17. The cellular communication system of claim 14, wherein the system is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on to which cell handover of the mobile station should be carried out.

18. The cellular communication system of claim 14, wherein the

system is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on when handover should be carried out.

19. The cellular communication system of claim 14, wherein the system is further configured to utilize information about traffic distribution in the system when deciding on handover of the mobile station.

20. The cellular communication system of claim 14, wherein the system is further configured to utilize information about capacity provided by the system in different parts of the system when deciding on handover of the mobile station.

21. The cellular communication system of claim 14, wherein the system is further configured to define sub-areas within the coverage area of the system and preferable bit rates for each sub-area, whereby the system is configured to use so defined sub-area information when deciding on handover of the mobile station.

22. The cellular communication system of any one of claims 16 to 21, wherein the system comprises:

a handover profile comprising definitions of preferable cell(s) for each bit rate whereby the system is further configured to use the handover profile when deciding on handover of the mobile station.

23. The cellular communication system of claim 18, wherein, when the mobile station is moving from the first cell to a second cell the system, the system is further configured to:

measure the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell; and

perform handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

24. The cellular communication system of claim 23, wherein the predetermined condition requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

25. The cellular communication system of claim 24, wherein the limit value(s) is (are) based on the variation of the bit rate provided by the first cell and/or the bit rate provided by the second cell.

26. The cellular communication system of any one of claims 14 to

21, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system.

27. A system element controlling handovers in a cellular communication system comprising cells and a mobile station having a connection to at least a first cell providing a certain data transfer rate i.e. a bit rate to the mobile station, wherein the system element is configured to:

collect bit rate information related to the mobile station; and

use the bit rate information for deciding on handover of the mobile station from the first cell to a second cell.

28. The system element of claim 27, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one second cell, a bit rate requested by the mobile station.

29. The system element of claim 27, wherein the system element is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on whether handover should be carried out.

30. The system element of claim 27, wherein the system element is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on to which cell handover of the mobile station should be carried out.

31. The system element of claim 27, wherein the system element is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on when handover should be carried out.

32. The system element of claim 27, wherein the system element is further configured to utilize information about traffic distribution in the system when deciding on handover of the mobile station.

33. The system element of claim 27, wherein the system element is further configured to utilize information about capacity provided by the system in different parts of the system when deciding on handover of the mobile station.

34. The system element of claim 27, wherein the system element is further configured to define sub-areas within the coverage area of the system and preferable bit rates for each sub-area, whereby the system element is configured to use so defined sub-area information when deciding on handover of the mobile station.

35. The system element of any one of claims 29 to 34, wherein the system comprises a handover profile comprising definitions of preferable cell(s) for each bit rate whereby the system element is further configured to use the handover profile when deciding on handover of the mobile station.

36. The system element of claim 31, wherein, when the mobile station is moving from the first cell to a second cell, the system element is further configured to:

measure the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell; and

perform handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

37. The system element of claim 36, wherein the predetermined condition requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

38. The system element of claim 37, wherein the limit value(s) is (are) based on the variation of the bit rate provided by the first cell and/or the bit rate provided by the second cell.

39. The system element of any one of claims 27 to 34, wherein the system element is a radio network controller.

40. The system element of any one of claims 27 to 34, wherein the system element is the mobile station.

41. The system element of any one of claims 27 to 34, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system.